DOCUMENT RESUME

ED 113 665 CG 010 170

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TITLE Postsecondary Education Access Study. Part III: High School Graduates Follow-Up Study. A Study Attempting to Find Out Why High School Graduates Who Aspire for Further Education Do Not Continue Their Education.
SPONS AGENCY Vermont State Commission on Higher Education.; Vermont State Dept. of Education, Montpelier.
PUB DATE 16 Sep 74
NOTE 72p.; For related documents, see ED 083 962 and 089 822

EDRS PRICE MF-$0.76 HC-$3.32 Plus Postage
DESCRIPTORS *Academic Aspiration; *Aspiration; College Bound Students; Dropout Research; Higher Education; *High School Graduates; *Occupational Aspiration; *Post Secondary Education; Research Projects
IDENTIFIERS Vermont

ABSTRACT

This is the last in a series of three studies dealing with Vermonters' aspirations and demands for education beyond the secondary level, and the problems of their access to it. The focus is on high school graduates and addresses the wide disparity between demonstrated aspiration to attend some form of postsecondary education, and actual enrollment or continuation after high school. The study analyzes the development of educational aspiration and the causes of noncontinuation. Use of factor analysis and regression analysis showed the development of aspiration to be contingent on three main variables--the academic program in which the student is enrolled in high school, the formulation of occupational goals, and the existence of a utilitarian value for postsecondary education which translates the desire for occupational training and success into the need for further education. Several barriers acting to inhibit or impede enrollment are also examined. The study includes a section of case history narratives designed to complement the traditional statistical interpretation of the data, and provide a contextual framework from which to view the problems in Vermont. (Author)

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ED113665

POSTSECONDARY EDUCATION ACCESS STUDY

PART III

High School Graduates Follow-up Study

A Study attempting to find out why high school graduates who aspire for further education do not continue their education.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Submitted Under Contract To:

Vermont Department of Education

Vermont Personnel and Guidance Association

Vermont State Colleges

Vermont Vocational-Technical Education Advisory Council

Submitted by:

Dr. Ted Bradshaw
Ms. Charlotte Hanna
Dr. Steven F. Hochschild

September 16, 1974

CG 010 170

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ACKNOWLEDGEMENTS

One major finding which has emerged out of our research efforts during the last year and a half is that the diverse, fragmented Vermont educational community does share a common concern over how well it is providing for educational access to Vermonters. A second major finding which has emerged is that the diverse, fragmented educational community in Vermont will join together and support projects of mutual interest such as this study. A third finding that has emerged is that this kind of collaboration and cooperation can pay off. Each participating institution gets the benefit of a study which it could not finance alone. In addition, the study is performed at a cost less than might have otherwise been incurred. One consultant estimated that the cost of this study would be $50,000. Through cooperative funding and resource sharing this study was completed for less than $13,000 without sacrificing technique or rigor.

During a time of lean budgets these institutions and organizations participated in the funding of the study:

Vermont Department of Education
(Planning Division)
(Vocational and Technical Education Division)

Vermont Personnel and Guidance Association

Vermont State Colleges
(Castleton, Community College of Vermont, Johnson, Lyndon, Vermont Technical College)

Vermont Vocational-Technical Education Advisory Council

The University of Vermont generously contributed computer services and manpower. The Community College of Vermont, in addition to the grant

it provided through the Vermont State Colleges, provided for my frequent released time to work on the study as well as other resources and services too numerous to mention. David Otis of the office of Budget and Management eased our office space problems and also proved helpful in many other ways. Almost every public high school in Vermont contributed to the study by taking the time to help us strike our sample group from their 1973 high school graduating class.

Numerous individuals made significant contributions to the research effort itself. I mention only some here. Gil Johnston helped prepare the original research design. Marge Christie, Andrea Lehtonen, and Jane Martin spent many hours persistently tracking down and interviewing high school graduates in our sample. Vaughn Petraglia and Jackie Fichel of the University of Vermont's Academic Computer Center frequently helped solve some of our computer problems and expedited endless printouts. Fred Curan of the University of Vermont's Office of Institutional Studies always was available for advice and back-up support. Diane Churinski of the Community College of Vermont competently served as secretary to the Project in addition to her other heavy secretarial duties at Community College of Vermont. Jeff Danziger contributed the cover illustration and other illustrations in the study.

My two co-researchers and co-authors provided extraordinary service to the study. Professor Ted Bradshaw provided expert methodological direction which was invaluable. He actively guided the study through many critical stages of data reduction and analysis. He since has moved to California, and we will miss his skill and commitment.

My other co-researcher, co-author, and research assistant, Ms. Charlotte Hanna, has worked tirelessly on the study since March and has performed the bulk of the work on the research itself. She has performed the formidable task of confronting a computer and an enormous quantity of data and making sense out of both! She has made a substantial contribution to every aspect of the study from interviewing and analysis as well as to the study's final draft.

Dr. Steven F. Hochschild
Project Director
September 16, 1974

I. INTRODUCTION

This is the third in a series of three studies on the aspirations and access of Vermonters for education beyond high school.

The need for this third study emerged out of the findings in the first study of high school students' postsecondary education aspirations. In the first study we learned that while 68.9% of high school students aspired for further education, only 49% actually continued their education right after high school. In fact, this continuation rate has dropped to 43% in 1972. We termed this phenomenon the "reach-grasp disparity".*

A number of Vermont institutions and associations wanted to find out more about this "non-continuer aspirant" who seeks further education but who apparently does not attain it. Last winter these six Vermont institutions and associations joined together to finance this third study. This study has followed-up on a sample of the 1973 Vermont high school graduating class in an attempt to answer these three major research questions:

1. Why do high school graduates who aspire for further education not continue their education?
2. Does the high school experience have any effect on these aspirants who do not continue their education?
3. Are the problems of these aspirants who do not continue their further education more acute in the Northeast Kingdom region?

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*See: "Vermont High School Student Aspiration Study: Interim Report I.

At the outset we should note that the analysis and content of this study differs in depth and complexity from the previous two studies. The first two studies are essentially surveys and represent descriptive analysis. This study digs deeper in an effort to go beyond description and provide explanation of what is really quite complex human behavior. This study provides a causal analysis of the behavior of "aspiring" on the one hand and "not continuing" further education on the other.

This "digging deeper" has resulted in the mining of some "heavy" conceptual and analytic lodes. We have attempted to eliminate as much as possible confusing and bothersome social science jargon, and to write in as clear a manner as possible. Nevertheless, the nature of this particular study requires more persistence and patience of mind than the previous studies. We hope the reader is rewarded with at least some insights and understanding of the "non-continuer aspirant".

The remaining text of the study is divided into four chapters:

Major Findings - This chapter includes a summary and an elaboration of each major finding and concept. This chapter covers considerable descriptive and conceptual ground.

The Making of a Non-Continuer Aspirant - This chapter provides detailed description and explanation of causal factors accounting for aspirations and non-continuation.

Portraits of Three Non-Continuer Aspirants - This chapter attempts to put real live skin and bones on the non-continuer aspirant by looking at three non-continuer aspirants: Paul, John, and Debby.

Study Sample and Methodology - This chapter provides the technical background to the study including description of the high school graduates sample used, data collection methods, and statistical analytic methodologies employed to help make a huge amount of data meaningful and explanatory.

Though Chapter IV describes the sample used in this study, it might be useful to know before reading further that this study is based on a sample made up of every tenth 1973 high school graduate (607 graduates). The study is based on written questionnaires (68% return), and a personal interview with the non-continuer subsample (126 in the subsample).

II.

MAJOR FINDINGS

This chapter provides both a summary and an elaboration of the major findings of the study as these findings relate to the original research questions appearing in the Introduction.

The reader will find that this chapter covers considerable descriptive and conceptual ground.

II.

MAJOR FINDINGS

The summary below is followed by a section more fully explaining each major finding.

SUMMARY OF MAJOR FINDINGS

I. The reasons that high school graduates aspire for but do not continue into postsecondary education are that either the graduate has developed only weak aspirations which actually inhibit efforts to overcome obstacles to enrollment, or the graduate has developed very strong aspirations and encounters insurmountable obstacles which block enrollment. In addition, the Study has found that some of the graduates with very strong aspirations have voluntarily postponed their further education.

II. The relative strength of a graduate's educational aspiration derives from three key building blocks of educational aspiration which surfaced during the study: the high school track experience, the occupational goal development process, and the development of a utilitarian value for postsecondary education.

III. We are able to identify three categories or types of high school graduates who aspire for but who do not continue into postsecondary education ("non-continuer aspirant") - each characterized by the relative strength of their aspirations. We have the predictive capability to identify problems related to aspirations, obstacles, and continuation which a student might encounter even before he/she enters or leaves high school.

IV. Non-enrollment agencies in particular and a number [illegible] which block their enrollment, but they do not recognize all of the obstacles which may eventually block their future enrollment. Such obstacles include lack of need to network employed, enrollment through goals, problems with finances, academic readiness, and family responsibilities.

V. Most high school graduates acknowledge that their high school guidance counselor was available to help them with the educational problems and plans. However, these same students did not adequately utilize guidance counseling services for these purposes. Rather, they depended upon their parents and peers for help and advice.

VI. Our three non-enrollment agencies provide valid vocational and employment-related educational programs that are [illegible] educational programs. Traditional liberal arts programs were preferred by relatively few of the graduates in our sample.

VII. High school graduates in the Northeast Oklahoma, Tahlequah, and Grand Lake have vocational opportunities that graduates have often missed in the State. This finding excludes data from the rural [illegible]

ELABORATION OF MAJOR FINDINGS

I. The reasons that high school graduates aspire for but do not continue into postsecondary education are that either the graduate has developed only weak aspirations which actually inhibit efforts to overcome obstacles to enrollment, or the graduate has developed very strong aspirations and encounters insurmountable obstacles which block enrollment. In addition, the Study has found that some of the graduates with very strong aspirations have voluntarily postponed their further education.

We find a crucial inter-acting relationship between educational aspirations and obstacles to educational access which affects continuation or non-continuation. Aspirations affect the extent to which a graduate will attempt to overcome obstacles for education. While we have found that some strong aspirants face obstacles which they cannot overcome no matter how hard they try, we also have found that the stronger the aspirations, the more able and willing the aspirant will be to actively attempt to overcome obstacles and pay the "costs" of enrollment (i.e. financial, postponed independence, travel, etc.). The weaker the aspirations the more likely an obstacle is <u>perceived</u> as insurmountable, and the less likely that aspirant actively will seek to overcome those obstacles. In this sense, weaker aspirations themselves act as a stumbling block or obstacle to educational access.

II. The relative strength of a graduate's educational aspiration derives from three key building blocks of educational aspiration which surfaced during the study: the high school track experience, the occupational goal development process, and the development of a utilitarian value for postsecondary education.

Each of these building block experiences and development processes is built on a basic "foundation block" formed by family advantages

and disadvantages (parents' income, education, occupation, etc.), but we can satisfactorily account for the development of aspirations by focusing on certain key building block experiences and processes.

We have identified and defined each key building block below:

A. High School Track Experience: Enrollment in the academic track in high school contributes to the strength of this building block and encourages the development of the other two building blocks of aspiration.
Enrollment in a non-academic track contributes to the weakness of this building block and tends to arrest the further development of the other two building blocks.
Consequently, this building block has enormous influence over the development of aspirations for postsecondary education.

B. Occupational Goal Development: The level and clarity of occupational goals determines the strength of this building block. The higher and more clear the occupational goal the stronger this building block will become. The lower or less clear the occupational goals, the weaker is this building block. Occupational goals need not be specific. They may merely indicate an aspired level of employment and/or status.
The strength of this building block is dependent upon the influence of parents, occupational role models, self-confidence for future success, and the high school track.

C. Development of Utilitarian Value for Postsecondary Education:
High school aspirants tend to value postsecondary education in terms of its economic and utilitarian value rather than in terms of intrinsic value (education is important for its own sake), or in terms of personal enrichment value (education helps me become a better person).
The higher the value the student places on postsecondary education the stronger this building block will become. The less a student is able to translate his/her occupational goals into postsecondary education requirements the weaker is this building block.
The perceived utility value for postsecondary education is strongly influenced by father's occupation and the previous two building block processes.

III. We are able to identify three categories or types of high school graduates who aspire for but who do not continue into postsecondary education ("non-continuer aspirant") - each characterized by the relative strength of their aspirations. We have the predictive capability to identify problems related to aspirations, obstacles, and continuation which a student might encounter even before he/she enters or leaves high school.

Below we have defined each category of non-continuer aspirant, and provided the percentage distribution of each category in our samples:

A. Strong Aspirant (27.4%)
   This aspirant is characterized by very strong and well developed building blocks of aspiration (academic high school track, high occupational goals, and high value placed on postsecondary education), and confronts very real obstacles to educational access (77% of this group), or voluntarily postpones his/her education (23%).

B. Weak Aspirants (46.8%)
   This aspirant is characterized by the fact that one out of the three building blocks in the construction of this graduate's aspiration is weak and under-developed. Obstacles to educational access usually overcome by most Stong Aspirants loom large and insurmountable to the Weak Aspirant.
   If educational access were eased for this aspirant, he/she would probably enroll in a career-oriented program.

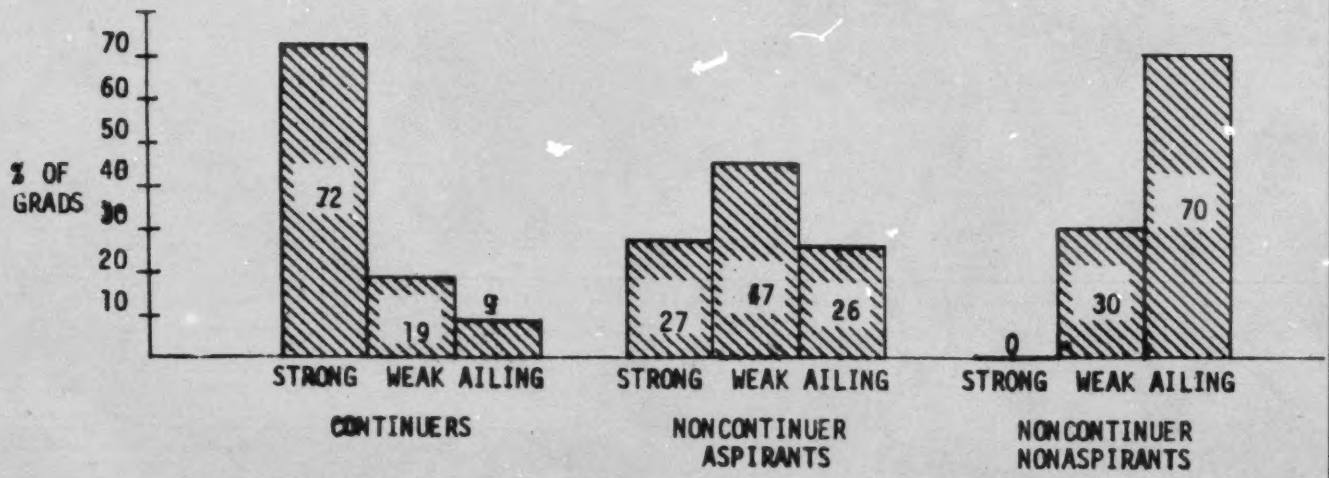
C. Ailing Aspirants (25.8%)
   This aspirant has suffered deficient and incomplete development of at least two key building blocks of aspiration (usually including the non-academic track). Even the easing of postsecondary educational access may not result in this Ailing Aspirant's postsecondary education enrollment. These Ailing Aspirant's first require help in repairing and strengthening their very weak building blocks of aspirations.

We tested the predictive capability of our findings by first classifying the graduates as (1) continuers, (2) non-continuer aspirants, and (3) non-aspirant non-continuers. Then we examined the relative strength of each group's building block variables

to gauge the predominance of strong, weak, and ailing building blocks within each graduate classification. The actual distribution of strong, weak, and ailing aspirants in the chart below should illustrate the predictive power of our model:

Chart A

The Strength Of Educational Aspirations For Three Categories Of High School Graduates

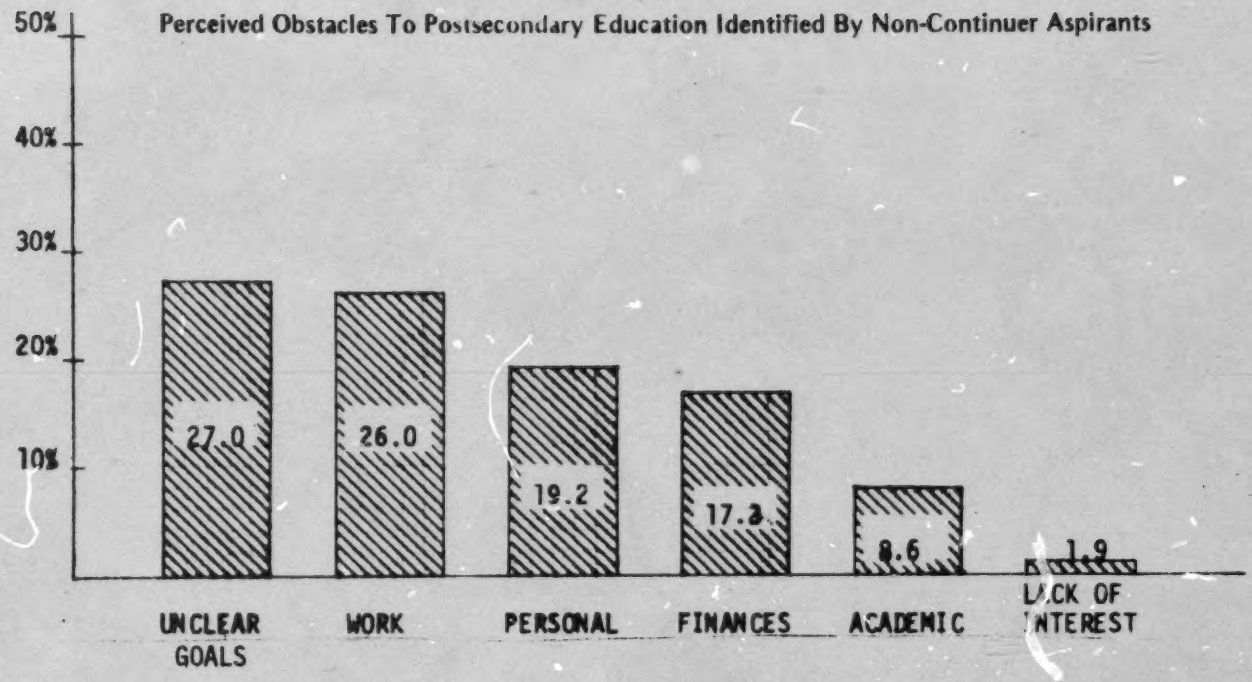


IV. Non-continuer aspirants do perceive and do encounter obstacles which block their enrollment, but they do not perceive all of the obstacles which may eventually block their future enrollment. Major obstacles include: desire or need to remain employed, unclear future goals, problems with finances, academic barriers, and family responsibilities.

The chart on the following page measures the <u>perceived</u> obstacles of the non-continuers in our sample.

Chart B

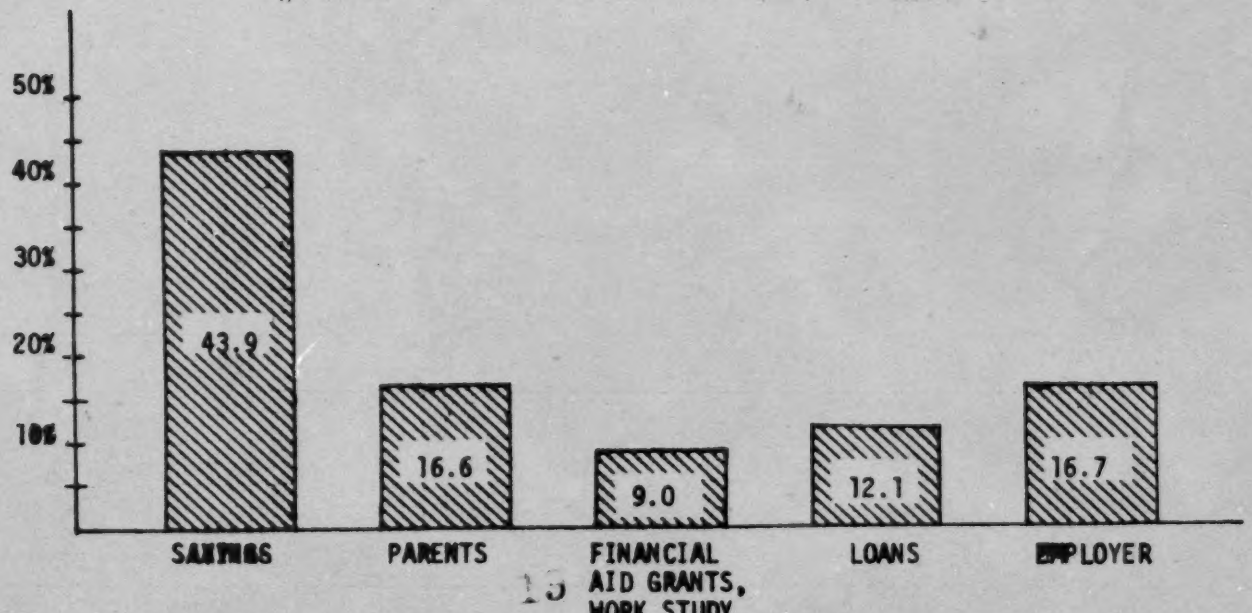
Perceived Obstacles To Postsecondary Education Identified By Non-Continuer Aspirants



Aspirants also face unperceived obstacles. For example, aspirants have unrealistic information on the costs of education. 43.9% of our sample intended to save up for education rather than borrow money as indicated in the chart below:

Chart C

How Non-Continuer Aspirants Plan To Finance Their Education



In light of real costs, it is not reasonable to expect aspirants to be able to save sufficient funds from their own income. This may account for the interesting fact that graduates currently enrolled in postsecondary education who now know the costs of education mention finances as more of a real or potential problem for them than our non-continuer aspirants. Lack of good information on educational costs and financial aid opportunities act as unperceived obstacles.

Another unperceived obstacle is often the lack of local availability of educational programs and in many instances simple lack of the program itself. Aspirants without many or any program options from which to choose are likely not to perceive that they face real limits of choice. In this sense, a narrow worldview of program options tends to weaken or limit aspirations.

At this point we can relate the obstacles confronted by the non-continuer aspirant described in this study to the Adult Study. In the Adult Study we did not include the immediate high school graduate when we looked at the problem of the non-continuer aspirant (called the "postponer" in that Study). We compared the "postponer" in the Adult Study to the adult who did continue (the "continuer") into postsecondary education after completing high school. However, as our graduate in this study becomes the adult in the previous study, we find many of the same obstacles perceived and unperceived as well as new obstacles emerge and are encountered for the first time. See the chart on page 55 which reproduces those obstacles identified in the Adult Study.

We also found in the Adult Study that as the postponer's aspirations increase between the years of 25-44, his actual enrollment into post-secondary education falls*:

	25-34	35-44
Aspiration Rate	71.4%	81.8%
Enrollment Rate	8.6%	4.0%

V. Most high school graduates acknowledge that their high school guidance counselor was available to help them work out educational problems and plans. However, these same students did not actually utilize guidance counselling services for these purposes. Rather, they depended upon their parents and peers for help and advice.

We listed a number of educational and other problems which the graduates in the sample might have encountered while in high school, and asked them, "Who you would see if you had such a problem," and, "Who did you actually see if you really did have the problem"?

As the chart on page 53 indicates, students tend to recognize the role of guidance counselors but do not tend to use their services, preferring to consult friends and parents.

VI. Our three non-continuer aspirant groups prefer career-oriented and employment-related educational programs over all other kinds of educational programs. Traditional liberal arts programs were preferred by relatively few of the graduates in our sample.

The Chart on the following page measures the demand for various kinds of educational programs and orientations.

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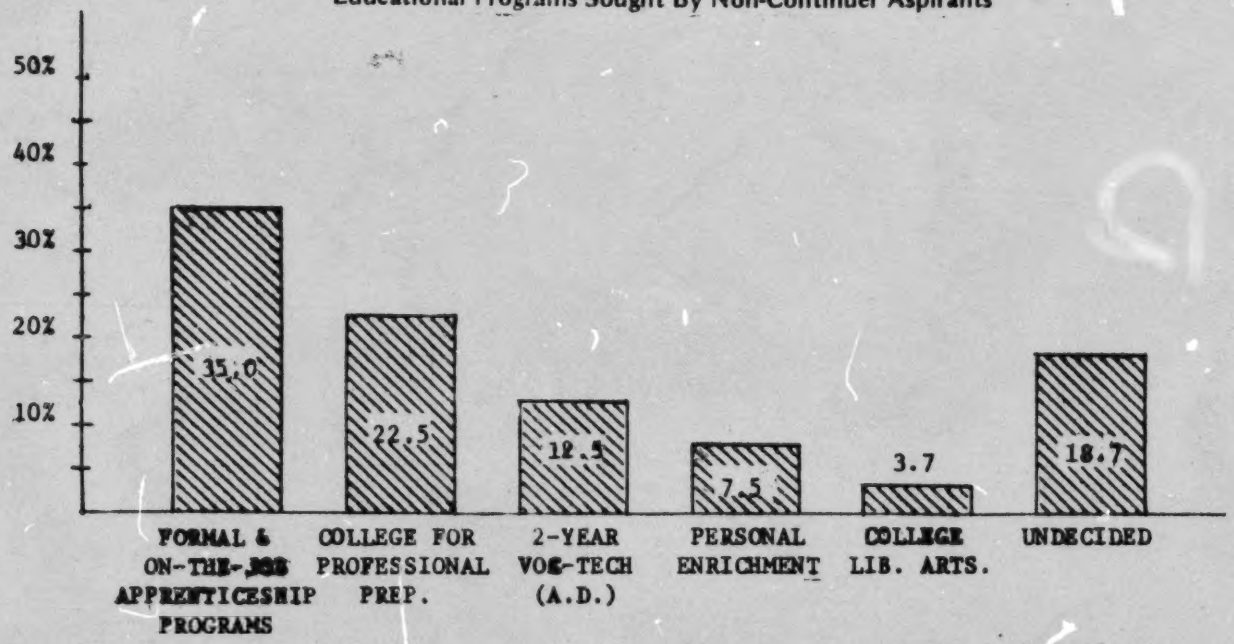
*Vermont Adult Postsecondary Education Access Study, page 5 and 7.

Chart D

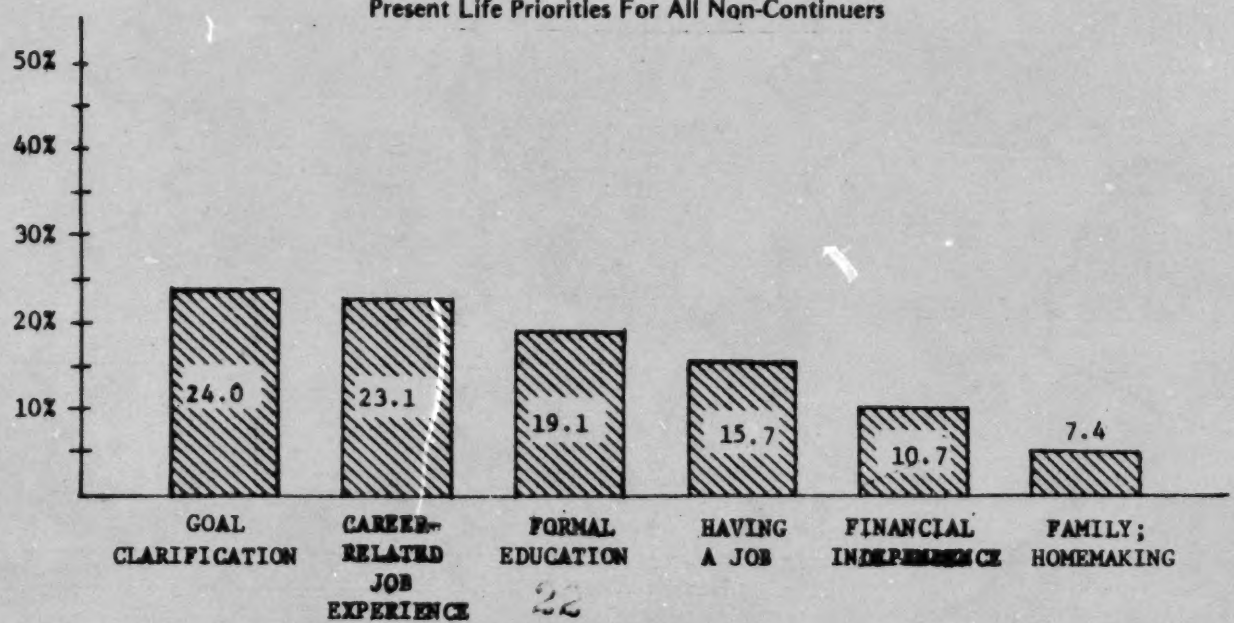
Educational Programs Sought By Non-Continuer Aspirants



The motivations behind the educational demands measured in the Chart above can be better understood by examining the current life priorities of our non-continuers illustrated in the Chart below:

Chart E

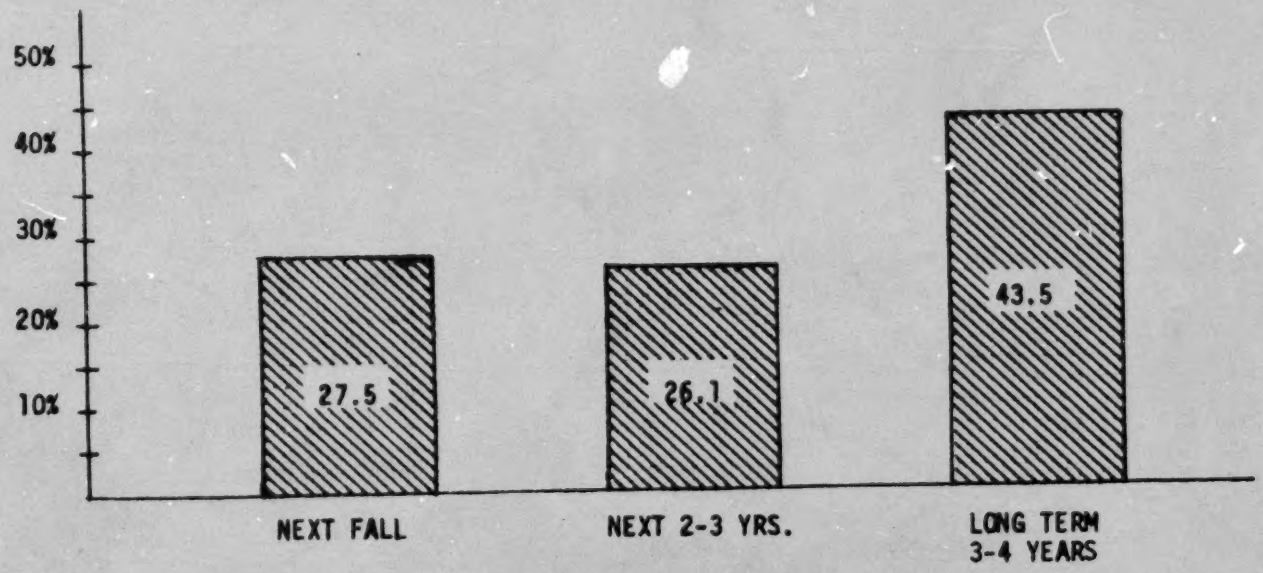
Present Life Priorities For All Non-Continuers



At this point it would be useful to examine the future enrollment intentions of the non-continuer aspirant. The chart below represents the intentions of aspirants to enroll sometime in the future:

Chart F

Intended Enrollment Dates Of Non-Continuer Aspirants



The chart reflects the desires of the "voluntary postponers" who probably will enroll in the future. However, the "voluntary postponers" comprise 6.5% of all non-continuer aspirants, and it would be fair to assume that the chart also includes the intentions of our other kinds of aspirants.

We know from the Adult Study that their real enrollment rate will be lower than their intention or aspiration rate to enroll. Hence, we have to assume that the reasons for this shortfall of eventual enrollment are similar to the reasons which explain non-continuation right after high school graduation by the same aspirants.

We think it would make good sense for those responsible for the planning, coordination, and further development of postsecondary education programs in Vermont to take into account these potential students' educational program preferences, their current life priorities, and future enrollment plans.

*VII. High school graduates in the Northeast Kingdom, Franklin County, and Grand Isle have weaker aspirations than graduates from other areas in the State. This finding excludes data from the town of St. Johnsbury.**

This is not surprising considering lower income and educational levels in these counties compared to the rest of the state. For example, 5% of the graduates' fathers in the northern counties had a college education as compared to 22% in the other counties.

These weaker aspiration rates are indicated in Chart G below. This chart compares the percentage of aspiration building blocks which are strong for both northern county graduates and the average for other county students:

Chart G

	NEK, Franklin Grand Isle	Other Counties
1. High School Academic Track	55%	61%
2. Technical/Professional Occupational Goal	54%	68%
3. Utility Value for Postsecondary Education	62.5%	70.3%

*St. Johnsbury was excluded because it was an exception to the otherwise rural character of the area.

III.

THE MAKING OF A NON-CONTINUER ASPIRANT

This chapter provides a detailed causal analysis in an attempt to explain why graduates who aspire for further education do not continue their education. In short, how does a non-continuer aspirant get that way - how is he made?

This chapter builds upon the model of an aspiration "tower" constructed out of the three key aspiration "building blocks" as well as other key variables. The model is used in an attempt to explain the relationship of key variables to aspiration development, obstacles to educational access, and continuation in post-secondary education.

III.

THE MAKING OF A NON-CONTINUER ASPIRANT

The primary task of this study is to determine why a large proportion of graduates who aspire for further training beyond high school do not continue their education. First, we need to consider the following two factors which operate separately but in conjunction to account for noncontinuation:

A. The level or strength of aspirations for postsecondary education, and

B. The existence of real obstacles to educational access.

The relationship between these two factors and enrollment may be better explained through the use of an analogy. Picture the construction of a tower. The top of the tower represents enrollment in postsecondary education. The tower itself is composed of the three key building blocks which determine the height and strength of the tower and represent aspiration. The tower and its building blocks rest upon a foundation composed of the familys' background and social history. In addition, various surmountable and insurmountable obstacles block the route to the top and lurk throughout the tower.

The analogy of a tower of aspirations serves to link together those factors which influence enrollment and also demonstrates how one factor builds upon another. Throughout this section, enrollment is seen to be a result of aspiration as suggested by the tower analogy. A strong positive correlation between aspiration and enrollment (.58) confirms this tie. Strong aspirations are the best predictor of actual enrollment and strong aspirations tend to overcome most obstacles

which might otherwise prevent enrollment. Our data clearly show that those factors which affect aspiration also affect enrollment at similarly high levels.* Thus, to determine why those graduates who aspire are not enrolled, we must look at the ingredients of aspiration. Those ingredients are the three building blocks of our tower - high school program, occupational goals, and value for postsecondary education.

It should be noted at this point, however, that the aspirations of some noncontinuers are every bit as strong as those of the continuers. In this particular case, real obstacles to postsecondary education access exist for the noncontinuer aspirant with well developed aspirations.

This chapter turns now to a more detailed discussion of the contribution of each of the three building blocks to the construction of the aspiration tower followed by a section mentioning other influences and variables affecting aspiration.

BUILDING BLOCK I: High School Program

Enrollment in an academic track in high school is the single most important building block experience contributing to aspirations for postsecondary education and actual enrollment.

The relationship between enrollment in an academic program and its consequences for postsecondary education is made clear in the following chart. For the State as a whole, high school students distributed

---

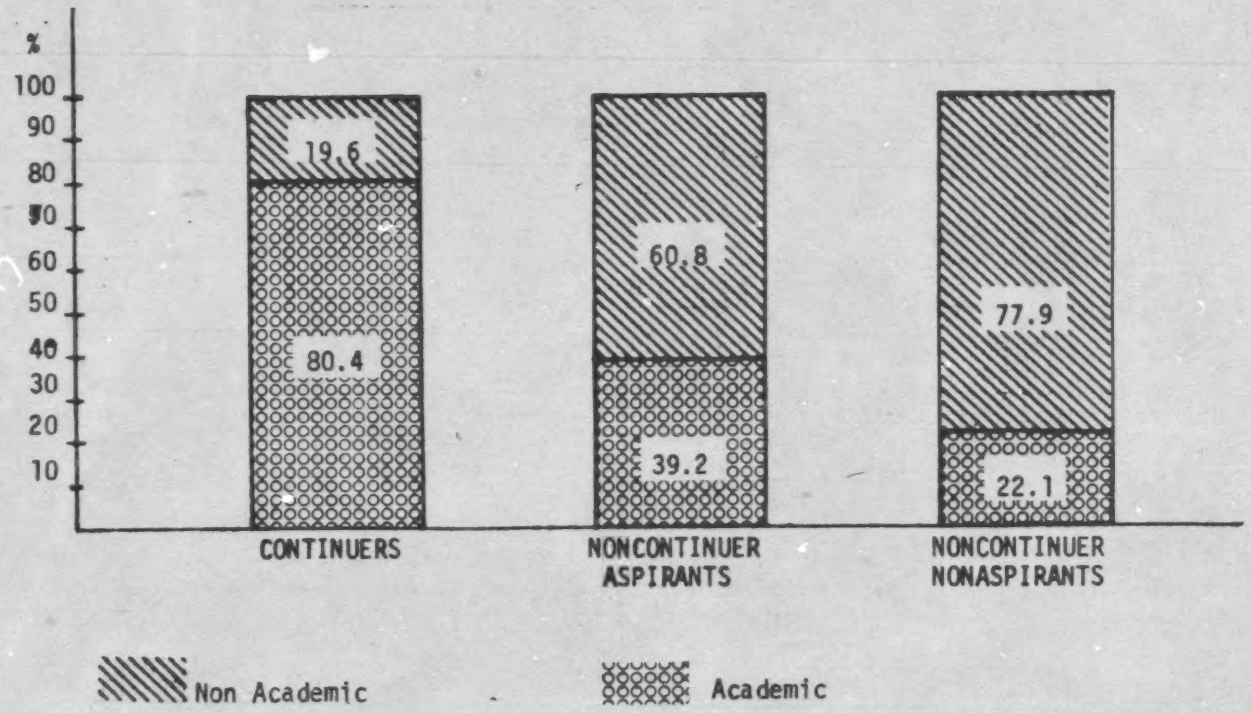
*Correlation Coefficients:

	Aspiration	Enrollment
High school program	.40	.52
Occupational goals	.27	.34
Value for PSE	.56	.49

themselves according to this pattern*:

Chart H

Proportions Of Students In An Academic Program In High School



Almost all (93%) of the students in the academic program aspired for postsecondary education and then later enrolled in a program (80%). This compares to aspiration rates of 70% for the vocational program, 46% for the business program, and 58% for the general program. The continuation

*This accounting for the students in Vermont may actually underrepresent the number of students who enrolled in nonacademic programs because of the greater nonresponse among noncontinuers.

rates were only 36% for vocational program students, 26% for business program students, and 37% for general program students.*

There are several ways to account for these figures. First, academic ability and family background determine which program a student will take in high school. Students in the academic track report fewer academic problems which would interfere with their aspirations for post-secondary education than are reported by students in other tracks. These students also come from more advantaged homes than do other students. The educational and occupational level of their parents is high, and they are no doubt reinforced at home toward academic success and aspirations for further education. See chart on page 54 for correlation between father's occupation and a graduate's continuation into post-secondary education.

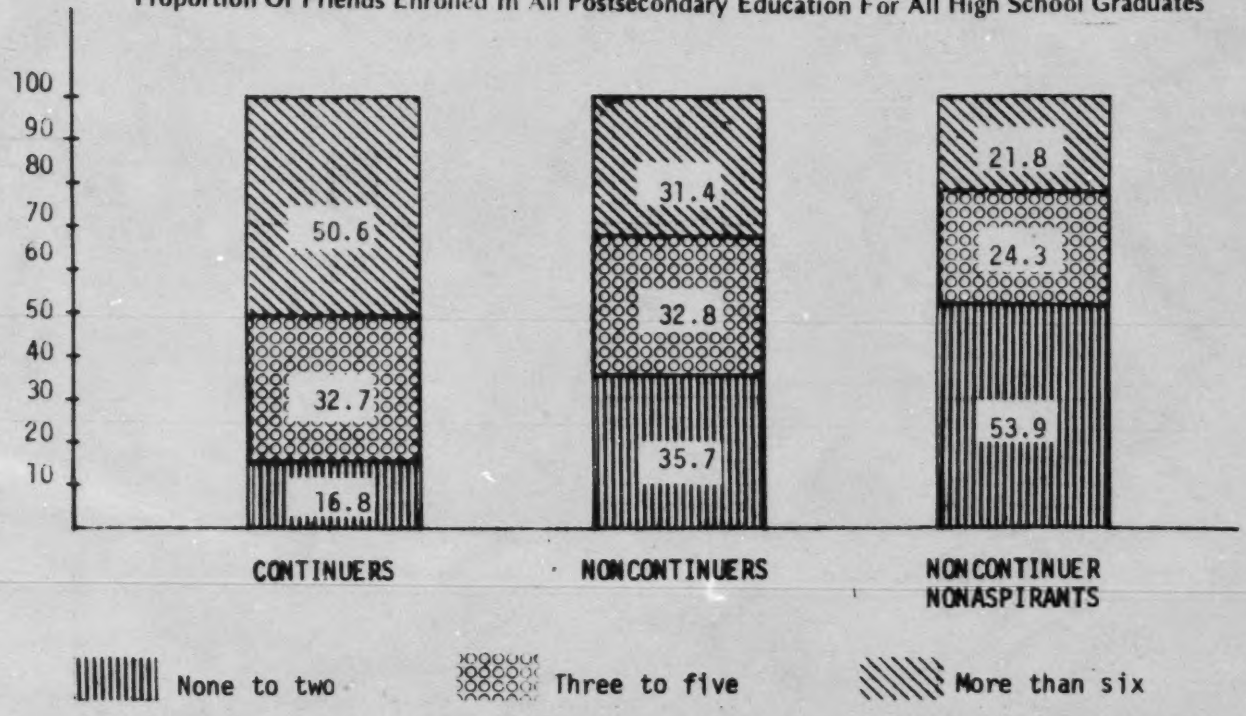
Once within the academic track, other influences build upon these initial advantages. Students in the academic track are academically prepared for higher occupational levels than are students in other tracks. It follows from this that these students are more likely to put a higher value on further education that will help them obtain the occupations they seek. In addition, students enrolled in an academic track receive support for their aspirations to continue both from their teachers and, more importantly, from the majority of their friends who are also in the same track and planning to continue their education. The chart on the following page should illustrate this finding:

---

*See chart on page 54 in the Appendix which details the relationship between high school program and aspiration and continuation rates.

Chart I

Proportion Of Friends Enrolled In All Postsecondary Education For All High School Graduates



BUILDING BLOCK II: Occupational Goals

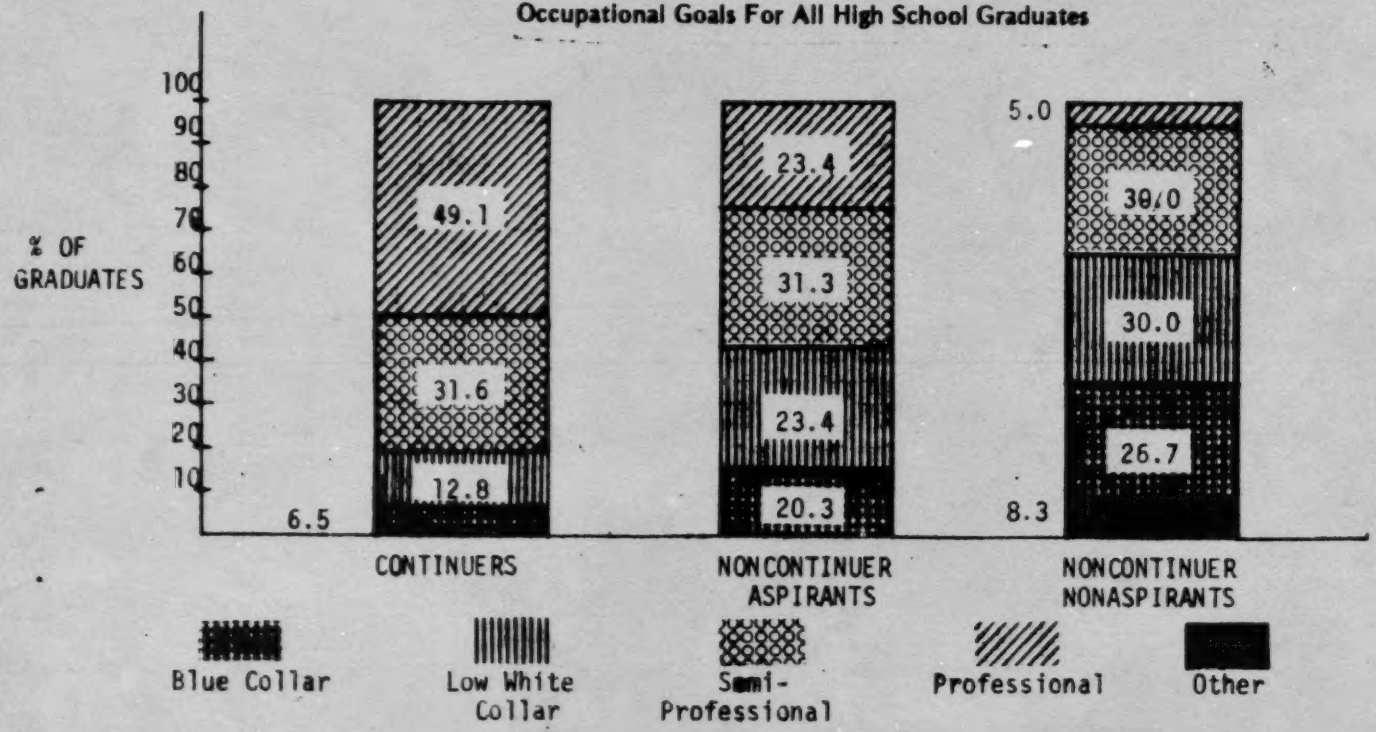
One of the major findings in this study is that Vermont students see postsecondary education largely in terms of the benefit it has for their occupational success. If they aspire for jobs of a low skill level (such as a truck driver), they have no aspirations for further education. If they aspire for jobs which require much education (such as a doctor), then they are almost certain to continue into postsecondary education. For our purposes these two extreme cases are of relatively

little interest. We are interested in those students who aspire for middle level jobs - nurses, draftsmen, carpenters, stewardesses. For these jobs multiple sources of training are available, and the degree to which alternatives to enrolling in a formal program exist in part determines the strength of a student's aspirations for postsecondary education.

The relation between the occupational goal of the student and his or her continuation into postsecondary education is shown in the data presented in this Chart.

Chart J

Occupational Goals For All High School Graduates



The student who has goals for a highly skilled occupation does not always develop a sufficient level of educational aspiration to properly prepare for that occupation. Between his occupational choice and his aspirations for education, there is a translation step which, when mounted, shows the student that education will be of value to him in his occupation. This suggests that there is considerable potential for dissonance between the occupational and educational plans of the student. When both are greatly out of line there is pressure to correct one or the other: the student will either let go of educational plans for the sake of a career which does not demand additional training, or the student will change his occupational plans to reflect the need for additional training.

In the questionnaire, considerable attention was paid to the process by which students develop occupational aspirations. One of the strongest predictors of occupational goals was the level of success which the graduates thought they might have in a variety of jobs. For each of a large number of jobs the graduates were asked how successful they thought they would be in that job if they had sufficient training. The responses were scored so that they reflected the level at which the graduates thought they could function successfully. This feeling of success was related to the type of occupational role models that existed for the student. This point makes sense only to the extent that the student knows that people who work in highly skilled jobs could also work successfully in almost any other occupation. In addition, the data showed the level

of anticipated success was of much greater importance in predicting the occupational goals of the graduate than was how much he/she thought he would like the job.

We have shown that the level of occupational aspirations of the student is important for the development of aspirations for postsecondary education. The non-continuer aspirant is predominantly the student who has middle level occupational aspirations and for whom the type of program available at traditional colleges and universities is not relevant for his or her needs. In many cases, the types of programs desired are two-year or part-time training, and often these types of programs are not easily available. Regardless of availability it is important to recognize that students in Vermont look to postsecondary education primarily for training in the skills that will lead to their occupational goals.

BUILDING BLOCK III: Values for Postsecondary Education

We have previously discussed the fact that high school program and occupational aspirations were translated into aspirations for postsecondary education through the operation of a set of values. The third building block of the tower, which represents a developmental process, thus rests clearly upon and reflects the preceding two. In fact, it is an integration of high school experiences with occupational goals into a plan which results in the decision to seek further education. Regardless of the student's high school opportunities and career goals, postsecondary education will likely be put aside if this integration is not successful.

The most important finding of the analysis of values for postsecondary education is that these are primarily vocational in character. Aspirations and enrollment are only weakly related to more conventional values for postsecondary education, especially those traditionally promoted by colleges and universities.

It will be useful to list the values which were most often cited by students as related to their aspirations:

1. Postsecondary education will enable me to be more self-reliant and independent.
2. The job I would prefer to have requires credentials that are available by completing some form of postsecondary education or training.
3. I am not prepared for any job I want; I will have to take more training beyond high school.
4. More and better jobs are available to most graduates of post-secondary education and training.
5. Further education or training will increase the income I get.
6. Further education will teach me many new things and I will get more satisfaction out of life.
7. Education is more important than most people think.
8. Postsecondary education will enable a person to meet and to solve adult problems better.
9. Postsecondary education does much to help a person better understand and act upon important community problems.

These values are grouped according to their interrelationships as assessed by a factor analysis* of these and a large number of other items. Values numbered 1-3 are by far the most important for the step

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*See pages 48 to 51 for definition and explanation of our use of factor analysis in this Study.

of translating occupational goals into educational aspirations. They are vocationally-oriented, and acknowledge the relevance of postsecondary education for job credentials and for meeting the requirements of a particular occupation. These values also stress that independence and self-reliance are important consequences of pursuing postsecondary education*.

Values 4-6 are not as specifically related to the students' own translation of occupational plans into postsecondary education, but instead, reflect the belief that education will make better jobs available, will increase the person's income, and will lead to more satisfaction from life. These are generalized beliefs which represent certain cultural values. These are highly related to the first set of values concerning the place of postsecondary education in the respondent's own job plans. These two sets of values then are of great importance to the development of aspirations for postsecondary education, and they stem almost entirely from the students' high school program and from the occupational goals the student has set for himself.

The sixth and seventh values when viewed together reflect a more traditional interpretation of the functions of college and university education, i.e. greater satisfaction stemming from knowing many things, only some of which are useful. They also reflect the idea that education is more important than most people think. These values were not shown to be important to the development of aspirations, but they are of some

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*An index made of these three items was used in most of the analysis as representative of all the values for postsecondary education because these three items are the most important for students and their plans.

importance for the continuation of the aspirant into some form of post-secondary education.

The last two values, 8 and 9, are included in this list to show the type of values which have almost no predictive relationship to the development of aspirations or to the eventual continuation of the student into postsecondary education. Vermont high school graduates are not interested in postsecondary education to further their participation in their community or to help them cope with personal problems. Other values which are also not related to the aspirations or to the enrollment chances of a student are statements that postsecondary education brings more respect and that it helps one to meet new and interesting kinds of people. If programs of postsecondary education appeal to these motives, and if they are designed to accomplish these goals, they will have little influence on the aspirations or on the enrollment patterns of Vermont students. In contrast, those values which are responded to by large numbers of students who strongly aspire to postsecondary education are those related to their direct vocational chances and to income and satisfaction.

The relation between the more traditional values and enrollment probably reflects more on the types of opportunities available for Vermont students rather than the kinds of things the Vermont students desire. That occupational values are related to aspirations and traditional values are related to enrollment indicates a discontinuity between the types of aspirations of students and the opportunities

which are available. Again, even with a sufficiently developed aspiration tower, it is clear from the analysis that there are real barriers for some students who aspire for certain vocationally-oriented training caused by the lack of variety in programs available.

IV. OTHER INFLUENCES ON ASPIRATIONS

The three building blocks described are the most important ones in the aspiration tower as shown by the fact that they account for most of the explained variance in level of aspiration. However, it is clear that they do not make up the entire picture. The aspirations of Vermont youth are increased when they have friends also enrolled in postsecondary education.

Respondents were asked how many of their friends were enrolled in some form of postsecondary education, and the difference is striking. Among the respondents who have six or more friends enrolled, over 50.6% themselves enrolled while among students with less than three friends enrolled, only 16.8% enrolled in postsecondary education. This finding is in keeping with the conclusions of the first study of high school seniors where a major determinant of their aspirations was found to be their friends' plans. Now we have shown that the impact of friends is not restricted to students in high school, that friends have a continuing influence, and that the friend's actual enrollment is of great consequence.

Aspirations for postsecondary education are strongly related to the goals that the student sets for his or her occupation, but, in addition, these goals are dependent upon the level of success that the

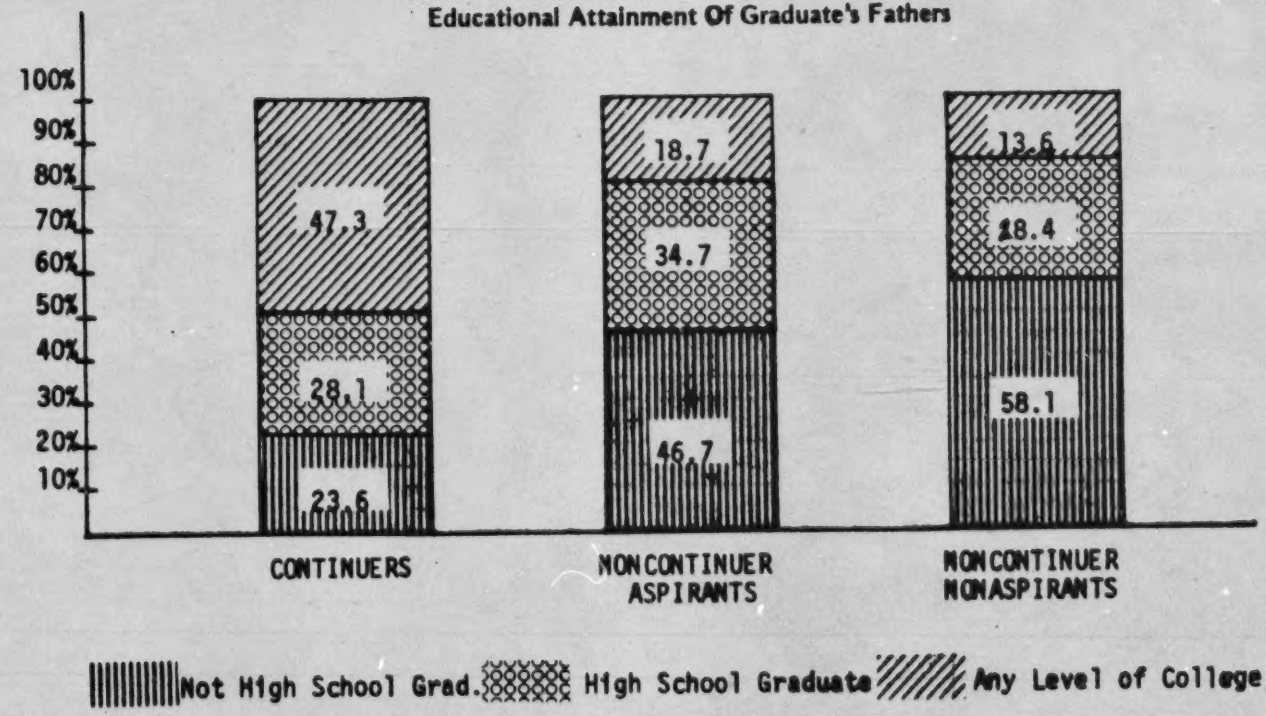
student feels he will have in any number of occupations. To the extent that the student thinks that he could have success in occupations requiring great skill, the student will aspire for more postsecondary education regardless of the other factors being discussed here. The important thing to conclude is that those students who think that they can be successful probably generalize this to their aspirations for more training. Those students who are uncertain about their ability to be successful have lower aspirations for more training. To the extent that the student has an accurate perception of his or her chances to be successful, this is as it should be; but if the perceptions of success are unrealistic, then there will be a poor fit between the student's actual ability and what the student attempts to achieve.

Students who come from families where the father is employed in a job requiring high levels of skill are more likely to have higher aspirations for postsecondary education. In terms of the tower, the father's occupation is part of the foundation, and its influence is considerable on all the blocks which are built upon it. The overall effect of father's occupation on the aspirations of a student is shown by the following data: 90% of the children of fathers who work in semi-professional or professional jobs have aspirations for postsecondary education compared to 73% of the children of fathers who work as farmers, blue collar trades, or clerical jobs. Most of the impact of the status of the father, however, is not directly related to the aspirations of his children because it is transmitted to an indirect or more subtle way.

A father's advantages are transmitted first to the children in terms of the high school program in which they enroll. Further, it is transmitted to the child in terms of the educational goals they set for themselves. The Chart below illustrates this finding:

Chart K

Educational Attainment Of Graduate's Fathers



Thus, regardless of any impact of the father on the aspirations of the child for postsecondary education, fathers who are advantaged give their children advantages in terms of bigger and stronger building blocks for their tower. The analysis suggests that about two-thirds of the

effect of fathers occupation on the aspirations of their children for postsecondary education is indirect in terms of the other building blocks. In sum, there is no way to avoid the suggestion that children from advantaged homes aspire for postsecondary education more than others, but this is because these advantages contribute to strong development of the building blocks.

Another rather small influence on aspirations for post-secondary education is that men aspire for education more than women. Among our respondents, 82% of the men aspired for some form of postsecondary education, compared to 76% of the females. This is true for the nation as a whole where men are more strongly directed toward high level occupations and toward more education. However, men and women are divided about half and half in attending colleges nationwide.

A final factor which has some influence on the aspirations of students is the rate of continuation for graduates from their high school. Data about the number of students who continue their education were collected from the high schools by the Department of Education. These data were used to describe the climate of each high school, and in fact, they were marginally significant in predicting the aspirations of the individual students when other factors were controlled. Most of the impact of the continuation rate of the high school actually reflects differences in the economic level of the towns in the state. In communities where most parents are professionals, the continuation rate is low. The aspirations of students really have far more to do with the status of their parents than with the character of the high school.

The three building blocks of aspirations plus the additional influences of friends, father's occupation, occupational success, sex, and community combine to predict the level and strength of the student's aspirations. It may be useful to list some of the factors which have no statistically significant influence on student aspirations.

1. The size of the student's community (rural versus large town).
2. The level of problems in the student's home - being criticized by parents or having the family interfering too much in the student's life.
3. Family financial problems.
4. Performance in school and dislike for high school.
5. Values for postsecondary education which stress its utility in terms of non-vocational or social attributes.

This study has refined and elaborated some of the findings of the first study. The most significant difference between the two studies is that aspirations among the graduates seem more tempered by the high school track and career plans than of the student enrolled at the time of the first study. Part of the difference may be due to different research questionnaires, but part is due to the increased importance of career decisions and the opportunities provided by an academic program after the student has been out of high school for almost a year. The studies are similar in their emphasis of the importance of values for postsecondary education and the importance of peers on decisions for further training.

IV.

PORTRAITS OF THREE NON-CONTINUER ASPIRANTS

In the following pages we try to provide a portrait of each type of non-continuer aspirant. We hope this will help give us insight into how the aspirants got where they are now, what they are doing, thinking, and their hopes for the future.

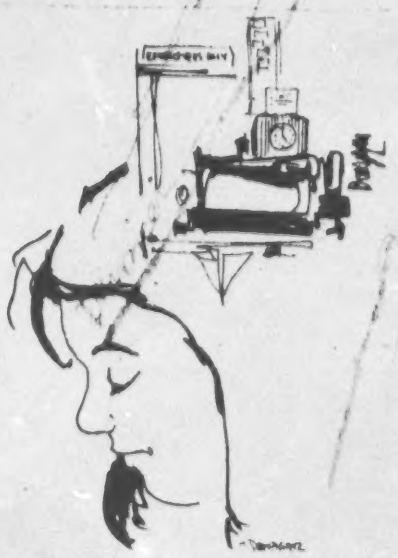
Each of our young aspirants, Paul, John, and Debby, represents a composite "portrait" carefully drawn from our actual interviews from the high school graduates in our sample.

PAUL-STRONG ASPIRANT

Since graduation Paul has been a construction worker in South Burlington, though he hopes to be an architectural technician some day. During high school he had strong aspirations for postsecondary education, but postponed his education after graduation because he wanted some work experience and time to clarify his career plans. However, he may encounter several obstacles as he tries to re-enter the education system.

JOHN - WEAK ASPIRANT

John is an orderly at the Veteran's Hospital in White River Junction, where he has worked since graduation from high school. He would like to gain more advanced training which would enable him to be a physical therapy assistant. His aspirations for postsecondary education which were formerly weak, are growing stronger as he recognizes the need for further education to achieve this occupational goal. He, too, is likely to encounter obstacles as he seeks the kind of education he desires.



DEBBY - AILING ASPIRANT

Debby is a sewing machine operator in a dress factory in Lamoille County. She originally wanted to become a secretary, but such jobs were scarce in her area. At this time she doesn't know what she wants to do in life, but will not completely rule out the possibility of further education until she is more certain of her future.

These are our three aspirants - strong, weak and ailing, respectively. Each chose not to continue his or her education beyond high school at the time of graduation, yet each harbors varying degrees of aspiration for continuing in the future. As we look at and listen to each of these three graduates more closely, we will try to answer two major questions:

1) Why these graduates decided not to enroll in postsecondary educational institutions right after graduation, and,

2) What they feel about postsecondary education now.

Why didn't Paul continue his education? He was in a college bound academic program in high school, and the majority of his friends continued their education beyond the secondary level. He comes from a family where education is supported and encouraged. Though his father, a real estate salesman, did not continue his education beyond high school, he has become committed to postsecondary education for his children. Paul's older brother is at a four year out-of-state college and hopes to become a lawyer. With this family background and high school preparation, it seems natural that Paul would have continued his education. What happened?

PAUL:

Paul thinks of himself as a voluntary postponer. "When I was a senior I really didn't know what I wanted to do though I definitely wanted to get a college education some day and knew I could handle it. The work I'm doing now is giving me a chance to look around, try different things, and see what other people do. If you want to learn about a job, you need to talk to people, see what they do, what they think about it, and what it's like." Paul reports that his high school counselors were of

no help in this respect. "I never saw them and when I did we just talked about sports. I can't say they really helped me. Sometimes they didn't like you if you didn't play sports. Once we talked about a career, but since I didn't know what I wanted, they couldn't help."

PAUL: "If you want to learn about a job, you need to talk to people, see what they do, what they think about it, and what it's like."

The importance Paul attaches to postsecondary education has increased with the clarifying of his occupational goals. Paul has worked on many different projects and assignments since joining the construction crew. He would like to be able to design and construct things he has not yet felt qualified to try. Once his boss asked him to build a loading ramp for the machinery being used, and Paul realized that he did not know enough about stress or balance to do this on his own. He would like to become an architectural technician and wants to study drafting, blue-print reading, engineering and also some design. He views further education as a necessary step to becoming qualified in this field. For him, postsecondary education now has a very concrete, utilitarian function. Armed with a solid high school preparation, a high occupational goal, and a high value for postsecondary education, Paul's aspiration is strong.

JOHN:

John, the hospital orderly, had never planned to continue his education beyond high school. While there, he took as many vocational courses

as possible, as well as academic ones, because he felt that in his vocational courses he, "... was at least learning something". His older sister has just finished Castleton's Elementary Education Program, and while John applauds her accomplishment, he has tended to look more to the example his father has set with his life. His father graduated from high school and went to work in a garage, building more skills and financial security as he went, until he opened his own gas station, which he now owns and runs.

John feels that, "... to get where you want to be in the world, you have to begin at the bottom and work up". He says that there was no vocational guidance offered in high school, only guidance for those who were college bound. "I knew I didn't want college then, so we never talked about the future." One counselor, he said, "tried to shove the service down my throat. He just wanted to get me out of his hair. Not only that, they wouldn't let me take all the vocational courses I wanted. You have to be in either one program or another, and once in, you're stuck from year to year with just that."

In the time that John has spent working in the hospital he has been able to see the details involved in many areas of medical specialization. His interest in physical therapy is a combination of a desire to work with and help people, and a fascination with the machinery utilized to help these people. This interest was first sparked by one of the staff with whom he worked, a woman whose experience and skill he greatly admired. This woman obtained an A.A. from her state Community College before coming to work in Vermont. After working as an assistant for several years,

she finally obtained a B.S. and became a physical therapist. John, having decided what he would like to do and looking at her example, has begun to re-evaluate the potential value of postsecondary education. Until recently John was a "poor translator". As he explains this, "Until I was sure what field I wanted to be in, I didn't see how more school was going to help me." John now knows exactly which courses he needs and wants, and these appear more desirable to him as he is able to portray them in useful, serviceable terms. John's weak aspirations for postsecondary education are becoming stronger.

JOHN: "Until I was sure what field I wanted to be in, I didn't see how more school was going to help me."

DEBBY:

Debby had originally hoped to go to nearby Johnson State College, but when she failed biology in high school, she was advised by her counselor to switch over from the academic to a business track. She did not go on to college as she had planned, because as she says, "I didn't think I could get in anywhere without any science credits, and I don't think I'd be able to make it through all the required courses in college even if I did get accepted. If you're taking business courses you don't get to take other

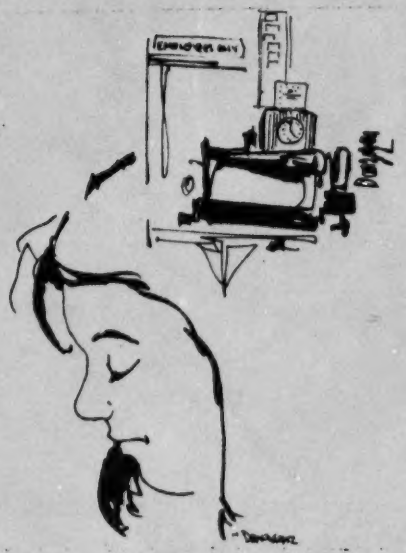
courses you need to get into college." Thus, Debby, "tracked out" in high school, and put aside her plans for further education. She says that her counselors were "too pushy. They never really treated me seriously." She was told what courses to take, not advised. There was really no room for discussion."

Debby's family was not at all upset by her decision not to continue. Her father has a job working in a hardware store, assisted part-time by Debby's mother who does some bookkeeping, and never graduated from high school. Though both parents would have supported her in her plans for more education, Debby's decision relieved them of the great financial burden they would have otherwise assumed.

Debby hoped her business skills would enable her to get a job as a secretary but was unable to do so. "You know what they told me? I didn't have enough experience! Now you tell me how a person is going to get experience for a job if they can't even get a job to give them experience." She went to work in her present job because she needed the money badly and was unable to find anything else. She doesn't want to leave her home town because of her boyfriend, so has not considered using her secretarial skills elsewhere. She no longer thinks of going to Johnson as they offer no secretarial courses. She says, "My boyfriend doesn't think it's such a good idea for me to go to college. He doesn't think I need to." At this time, Debby cannot think of any reasons for going on, herself, though she still has a lingering desire to do so. "I've thought about taking more business courses, so that maybe I could get a good job, but I just don't know right now. I can't see taking

a bunch of courses I don't like when I'm not sure what I really want."

A girl with whom Debby works in the factory also had higher educational and occupational aspirations that dwindled from a lack of clarity and encouragement. For a long time this girl had hoped to become a veterinarian's assistant but has now put aside the idea. According to her, "I didn't really know how to go about it; I didn't know anyone who could help me."



DEBBY: "... I just don't know right now. I can't see taking a bunch of courses I don't like when I'm not sure what I really want."

These are some of the reasons recounted for non-continuation. We are trying to show, through the experience of our aspirants, how the three building blocks - high school program, occupational goals, and value for postsecondary education - are interrelated, and how they influence aspiration and ultimate enrollment. As we look still further at these young aspirants, we see that they each must cover additional distance between their current aspirations and future enrollments.

Paul, for instance, states that he plans to enroll at Vermont Technical College, because, "It's a two year program, and that will give me a chance to really get into it and decide if I want to go all the way through four years for a B.S. If I don't, then I'll still have a better skill and training than I've got now." Vermont Tech. is the only two year technical program that Paul knows about. He

is not thinking of other institutional alternatives that might offer similar or even more accessible two year programs. If they exist, he does not know about them. Another consideration is cost. "I figure that I'll have enough saved in another year to make it through," Paul states confidently. He does not think that he has an unrealistic idea about his ability to pay his own way. In fact, he is determined to do so because he doesn't want to "owe" anybody. Nor has Paul considered additional fees he will incur beyond tuition - room and board, books, as well as other fees. He is only beginning to discover that very real obstacles of access may severely inpede his progress toward enrollment, and push actual enrollment even further into the future.

Paul is not alone in his lack of information on programs and costs. Many don't know where to find the programs they seek. One friend of Paul's works for the phone company and is getting on-the-job electrical training. He says he's really lucky, because if his employer didn't provide this, he wouldn't know where to go for it. Several are looking for basic business courses so that they can some day set up their own mechanical or construction businesses. Others are looking for ways to learn more than they can pick up just on the job - in specific areas like wiring, drafting, or auto mechanics and welding. For these people cost is secondary. It is more important to be able to obtain the courses they seek.

John, who has only recently examined the potential benefits of postsecondary education, has also run up against stumbling blocks to enrollment. He has investigated the courses offered by the Community

College of Vermont and knows that he could arrange to get the courses he needs. Unfortunately, though, Community College does not have a site in his region. John says that it's just too far to go to the nearest site, and he really just can't manage it. CCV appeals to John because he can schedule his courses around his work, as well as get some credit for what he is already doing toward his A.A. degree. Another advantage of CCV for John is the cost. Most of John's limited salary goes toward paying for his new car and saving for his upcoming marriage. "I have figured out how much I can afford to pay for my education if I were still working, but frankly," he says, "I don't want to give up my job to go back to school, and I definitely don't want to move away and spend all that time and money for my education." Unless John can be reached by some educational agency like Vermont's Community College, his aspirations will atrophy.

For Debby, finances have never been a perceived obstacle to further education, as she has never investigated the costs involved in getting an education. She is not aware of any financial assistance that might be available to her, nor does she have any knowledge of sources to tap for this information. We can only guess that if Debby's aspirations for postsecondary education were higher, financial obstacles might appear in a very different light. Right now, Debby's confusion about how to relate further education to her own life is her chief obstacle. This, combined with her academic insecurity, leads Debby to feel that further education is for others, not for her. Many of Debby's expressed frustrations toward postsecondary education might be overcome if counseling were available to her - someone she could talk to who could recognize

her situation and offer her some concrete suggestions to help her with her occupational and educational dilemma.

During this brief glimpse into the lives of these three aspirants several different life styles, needs and feelings have been presented. Hopefully, it will provide a clearer picture of the kinds of graduates with whom we are dealing - strong aspirants with real obstacles of access, weak aspirants in need of attention and encouragement, and ailing aspirants with problems of aspiration.

Looking overall, we find that educational demands are intricately tied with occupational aspirations, as with educational background and resulting values held for further education. Among all these people there is a growing trend away from 4-year programs and liberal arts courses toward specific career-oriented ones. A large number of students do not know what they want from the academic world until they have had a chance to explore the nonacademic world on their own. This, combined with the many reports that high school guidance efforts are inadequate, suggests that too many students want and need more exposure to life options while they are in high school, so that they may direct their high school experiences toward their futures outside school.

V.

STUDY SAMPLE AND METHODOLOGY

This chapter provides the technical background to the study including description of the high school graduates sample used, data collection methods, and statistical analytic methodologies employed to help make an enormous quantity of data meaningful and explanatory.

V.

STUDY SAMPLE AND METHODOLOGY

STUDY SAMPLE

The sample for this third study was comprised of every tenth Vermont high school student who graduated in 1973 as provided to us by high schools. As with the other access studies, extensive attempts were made to secure cooperation. Post cards requesting address confirmation or change were sent to all students in the sample. Then, an introductory letter was sent to the students which explained the study and requested participation. This was followed by the questionnaire, a reminder, and also a second questionnaire to all those who did not respond initially.

The efforts to achieve cooperation produced a high (68%) response - 411 completed and useable questionnaires were returned out of 607 students on the original mailing list. In order to determine the representativeness of the respondents we compared the respondents and nonrespondents in terms of their high school's report on whether or not they had continued into postsecondary education.

Among the respondents, about 67% were listed by their high schools as continuers, but among the nonrespondents the high schools listed only 50% as continuers. Since there is not a perfect correlation between the high school reports of continuation and the students' eventual enrollment, we believe that more continuers responded to our questionnaire. The difference is enough to recommend caution when viewing the officially declined rate of continuation in Vermont.

Because of our special concern in this study with the non-continuers, an interview was designed to complement the mail questionnaire. A selected sub-group of 126 students identified by their high schools as non-continuers were interviewed by phone prior to mailing the questionnaire. All of the students who were interviewed were subsequently sent questionnaires. Although the phone interviewers urged graduates to complete and return their mail questionnaire, only 69 (55%) of the interviewed students cooperated. We presume that this lower response rate reflects the respondents' feeling that the mail questionnaire was merely a duplication of the phone interview which, in fact, was different. Because of the low number of mail questionnaires returned by the interviewees, attempts to link interview and questionnaire data will not be used in the subsequent analysis. In the discussions which follow, data obtained from the interviews will be identified as such; otherwise, the mail questionnaire will be the source of the data.

Finally, a note is needed about scales and indices, occupational categories, father's occupation, student's occupational plans, and detailed information about the student's evaluation or chance of success in various occupations. Occupations are ranked in terms of their educational, income, and prestige characteristics.* Other indices are made by the combination of two or more variables. Usually the variables have the same range and were simply added together, eliminating cases

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*See Albert J. Reiss, Jr., Occupations and Social Status, New York: Free Press, 1961, pp 263-275.

where one or more item of data was missing. See pages 56 to 60 in the Appendix for a description of the variables used in the study.

METHODOLOGY

A wide variety of statistical and interpretive techniques were used in this study including extensive use of factor analysis and regression or path analysis. These techniques were employed to both reduce a huge quantity of data to manageable size and to help us see important relationships between variables. Charts of coefficient correlations and path coefficients are on pages 61 to 62 in Appendix.

Factor analytic techniques enable the researcher to extract patterns of relationships from the data by expressing one variable as a linear combination of several variables so that the data may be rearranged and reduced. In this study we utilized factor analysis to discover which of many statements about postsecondary education were meaningful for our graduates. Those statements which "factored" together were then built into indices of items which we refer to as values for postsecondary education.

A path analysis was used to develop the findings reported in the preceding chapters. The model suggests that there are six important steps up to and including enrollment as well as several minor ones in the process of developing aspirations and then continuation. A causal order is assumed so that the early steps precede all of the later steps. The tower is built in the following order:

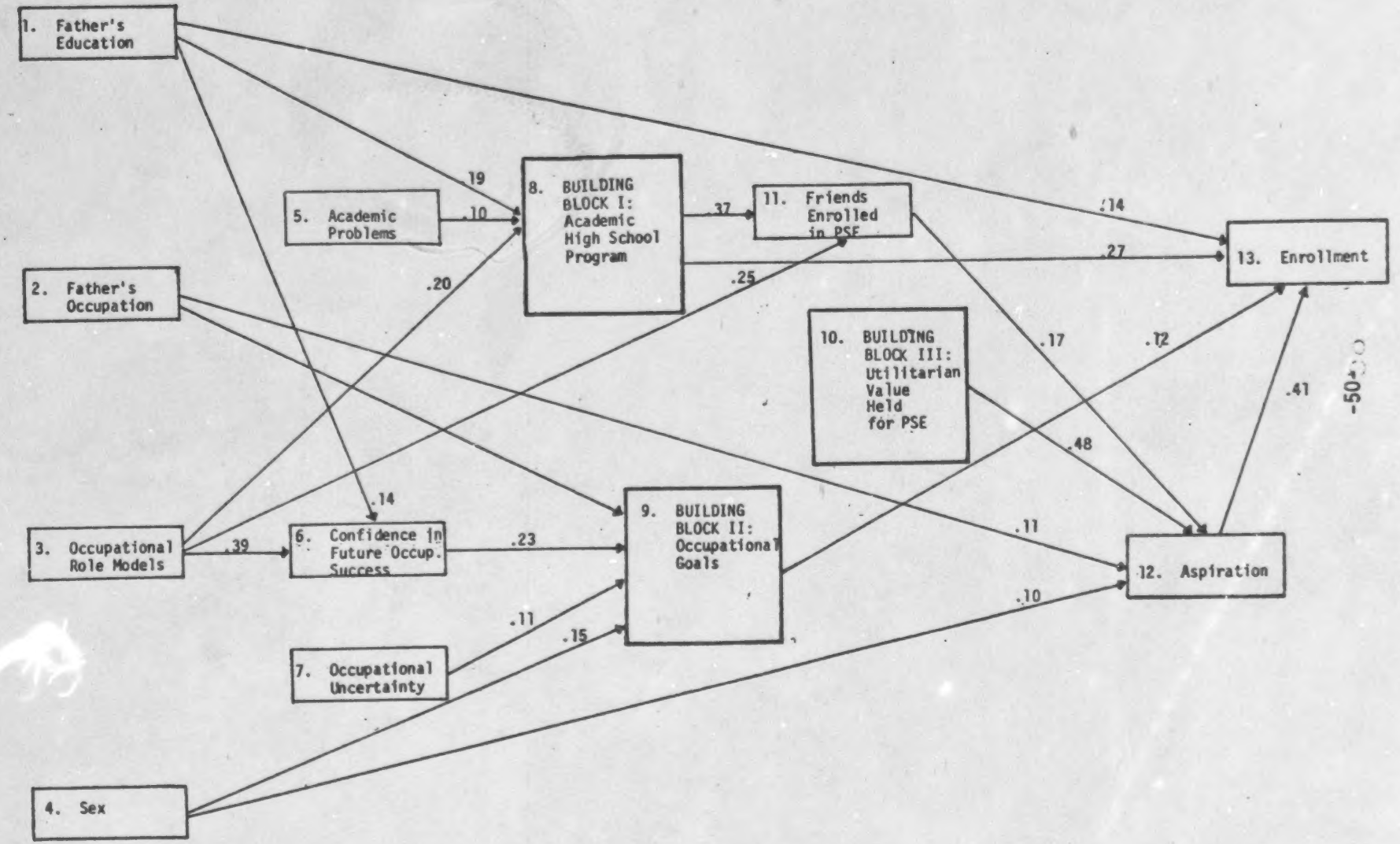
1. Background factors.
2. Enrollment in an academic high school program.
3. Developing aspirations for a skilled job.
4. Interpreting opportunities and occupational goals in terms of required postsecondary training.
5. Making plans for more training.
6. Actual enrollment.

Since the interest of the analysis is on the non-continuer aspirant, we make the assumption that if any factors intervene between aspirations and continuation, these are the factors which are responsible for the lack of a perfect fit. Since the path between aspirations and enrollment is only .41, this suggests that there are many important factors between aspirations and enrollment that are not included in the development of aspirations. However, the relations between aspirations and enrollment is so strong that there is confirmation of the importance of developing strong aspirations which overcome many of the obstacles which might have otherwise stopped the student from enrolling.

In the Path Model presented on the next page, the arrows represent strong, statistically important relationships. Some of the less important variables have been left out of the diagram for purposes of simplicity by using the criteria that all paths must contribute at least an increase of 1% additional increased variance explained. This assumption was relaxed and all variables which were statistically significant at above the .05 level were included in the analysis reported in Table 2. A word about path analysis may be needed for individuals not familiar with it. Path analysis is a regression based model of analysis using standardized regression coefficients. These coefficients or paths are

Figure L

Path Model



useful because they allow the researcher to trace the direct and indirect influences of variables from the left side of the model on any variable on the right side. Readers interested in this technique should consult Kenneth C. Land, "Principles of Path Analysis" in Edgar F. Borgetta (ed), Sociological Methodology, 1969 (San Francisco, Jossey Bass Publishers, 1969). Generally, paths are significant if they are over ±.05 in strength and they reach a maximum value of about ±1.0 under normal circumstances. The sign of the path represents its direction of relationship.

Notes on literature related to this study is on page 63 in Appendix.

APPENDIX

Chart M

Comparison Of Intended And Actual Use Of Counselors, Parents, Teachers And Friends For Help With Educational And Occupational Plans and Problems

	WAS THIS A PROBLEM		% STUDENTS RESPONDING TO: Parents	Counselors	Teachers	Friends
Don't know what vocation I really want	No	From whom WOULD you seek help?	32	49	9	7
	Yes	From whom DID you seek help?	48	29	6	10
Unable to enter desired occupation	No	From whom WOULD you seek help?	35	47	7	2
	Yes	From whom DID you seek help?	36	34	14	10
Doubt school really prepares me for work	No	From whom WOULD you seek help?	27	45	14	9
	Yes	From whom DID you seek help?	45	15	17	15
Unable to see the usefulness of high school	No	From whom WOULD you seek help?	23	39	25	9
	Yes	From whom DID you seek help?	26	18	34	20
Teachers are too hard to understand	No	From whom WOULD you seek help?	16	21	54	8
	Yes	From whom DID you seek help?	20	18	36	21
Having a poor background for some subjects	No	From whom WOULD you seek help?	12	40	48	1
	Yes	From whom DID you seek help?	16	24	48	10
Unable to get a job	No	From whom WOULD you seek help?	40	24	1	11
	Yes	From whom DID you seek help?	53	9	2	14
Don't know how to get a job	No	From whom WOULD you seek help?	47	29	3	8
	Yes	From whom DID you seek help?	55	15	9	6
Have no well planned career goal	No	From whom WOULD you seek help?	31	58	5	3
	Yes	From whom DID you seek help?	41	33	6	6

Chart N

Relationship Between High School Program
And Aspiration And Continuation Rates

	Proportion of Respondents	Aspiration Rate	Continuation Rate
Academic Program	62% (232)	93%	82%
Vocational Program	10% (36)	70%	36%
Business Program	12% (46)	46%	26%
General Program	15% (57)	58%	37%
	100%		

Chart O

Correlation Between Father's Occupation
And A Graduate's Continuation

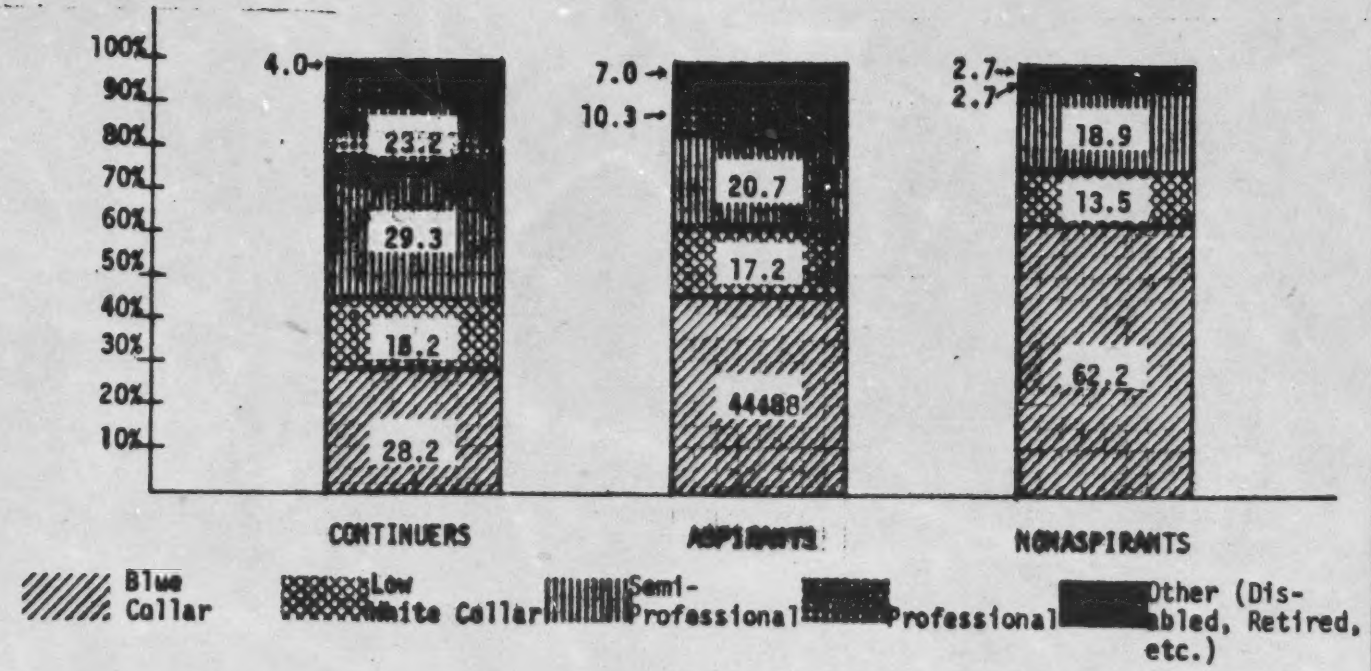


Chart P

PERCEIVED OBSTACLES TO ENROLLMENT IN POSTSECONDARY EDUCATION*

	Yes %	No %	N/R %
Cost of tuition	53.9	27.8	18.3
Not enough time	45.5	33.3	21.3
Don't want full-time attendance	46.5	32.2	21.3
Home responsibilities	46.1	32.6	21.3
Job responsibilities	40.4	37.9	21.7
Amount of time required to complete a program	31.4	44.8	23.8
Too old to begin	20.4	63.2	16.4
Lack of information about programs available	22.1	54.1	23.8
Courses not scheduled when I can attend	29.1	45.1	25.9
Strict attendance requirements	15.2	58.5	26.3
Low grades in the past	11.6	63.2	25.3
Courses not available	24.8	49.3	25.9
No child care	8.2	65.7	26.1
Too much red tape when enrolling	14.5	59.4	26.1
Not enough energy or stamina	12.8	63.2	24.0
Don't enjoy studying	13.1	62.5	24.4
Lack of transportation	13.7	62.9	23.4
No place to study or practice	4.4	70.9	24.6
Tired of school and classroom	12.6	61.9	25.5
Lack prerequisites to begin	10.3	61.3	28.4
No way to get degree credit	13.3	59.8	26.9
Unwilling to compete	7.6	66.5	25.9

*From Vermont Adult Postsecondary Education Access Study, 1973, Appendix Section.

Chart Q

DESCRIPTION OF THE VARIABLES USED IN THE STUDY AND PATH MODEL

Enrollment: Are you presently enrolled in some form of postsecondary education (including on-the-job training)?

0 = no 1 = yes

Aspiration: A. Are you presently enrolled in some form of post-secondary education?

0 = no 1 = yes

B. Do you plan to take some form of postsecondary education in the future (including OJT and apprenticeships)?

0 = no 1 = yes

C. While you were in high school, did you at any time plan to take some further training beyond high school?

0 = no 1 = yes

If A = yes, aspiration assumed	Aspiration 5
If A = no and B = yes and C = yes	Aspiration 4
If A = no and B = yes and C = no	Aspiration 3
If A = no and B = no and C = yes	Aspiration 2
If A = no and B = no and C = no	Aspiration 1

Good Job (a value for postsecondary education): Simple sum of responses to the following items:

A. The job I would prefer to have requires certificates and credentials that are available by completing some form of postsecondary education.

0 = no 1 = yes

B. Postsecondary education will enable me to be more self-reliant and independent.

0 = no 1 = yes

C. I am not prepared for any job I want; I will have to take more training beyond high school.

0 = no 1 = yes

Utility (a value for postsecondary education): Simple sum of responses to the following items:

A. More and better jobs are available to most graduates of postsecondary training.

0 = no 1 = yes

B. Further education will teach me many new things, and therefore I will get more satisfaction out of life.

0 = no 1 = yes

C. Further education or training beyond high school will increase the income I get.

0 = no 1 = yes

Value (another value for postsecondary education): Sum of responses to the following items:

A. Further education will teach me many new things, and therefore I will get more satisfaction out of life.

0 = no 1 = yes

B. Education is more important than most people think.

0 = no 1 = yes

Occupational Goal: What occupation do you see now as your career goal?

1.= Blue collar
2.= Low white collar
3 = Semi-professional
4 = Professional
5 = Other (including homemaker)

Highest Occupational Choice: 1 + sum of choices on occupational ratings of preference (1-16)×(Blau weighted scale).

High Success: 1 + sum of perceived values of occupational success in jobs (1-16)×(Blau weighted scale).

Unsure of Occupation: Sum of responses to the following items:

A. Unsure of occupational interests.

0 = no 1 = yes

B. Not knowing what vocation I really want.

0 = no 1 = yes

C. Not having a well planned career goal.

0 = no 1 = yes

High School Program: 1 = Non-academic (vocational, business, general)
2 = Academic

Friends Enrolled: The number of close high school friends who are attending postsecondary education (training beyond high school including OJT and apprenticeships)

0 = none 1 = one or two
2 = three or four 3 = five or six
4 = more than six

Academic Problems: Sum of responses to the following items:

A. Unhappy about marks in general.

1 = no 0 = yes

B. Hard to study at home.

1 = no 0 = yes

C. Teachers too hard to understand.

1 = no 0 = yes

D. Have a poor background for some subjects.

1 = no 0 = yes

School is a Waste: Sum of responses to the following items:

A. Doubt that school really prepares me for work.

1 = no 0 = yes

B. Unable to see the usefulness of high school courses.

1 = no 0 = yes

C. Dull classes.

1 = no 0 = yes

Control: Sum of the following items:

A. What happens to me is usually determined by the influence of other people.

1 = no 0 = yes

B. Other people have better of no control over what happens to me.

1 = yes 0 = no

C. Much of the time the future seems uncertain to me.

1 = no 0 = yes

Financial Problems: Sum of the following items:

A. Sickness in the family.

1 = no 0 = yes

B. Family financial problems.

1 = no 0 = yes

C. Family income.

1 = high 2 = medium 3 = low

Economic Region:

3 = high - Chittenden, Windsor, Windham, Washington, and Addison Counties.
2 = medium - Rutland, Lamoille, Bennington, and Orleans Counties.
1 = low - Caledonia, Orange, Franklin and Essex Counties.

School Continuation Rate: Percent of graduates who continued into post-secondary education for each school:

18% - 25% = low
26% - 35% = medium
36% - 45% = medium high
46% - 76 % = high

Model: 1 + sum of existence of occupational models on levels (1-16) X (Blau weighted levels)

Sex: 0 = female 1 = male

Residence:

1 = rural farm
2 = rural non-farm
3 = village (under 5,000)
4 = urban (over 5,000)

Father's Education:

1 = not high school graduate
2 = high school graduate
3 = some college
4 = college graduate or more

Father's Occupation:

1 = blue collar
2 = low white collar
3 = semi-professional
4 = professional
5 = other (retired, disabled, disceased)

Chart R

Correlation Coefficients

	ENROLL	ASP.	GOOD JOB	UTILITY	VALUES	OCC GOAL	HIGH OCC	HIGH SUCC	OCC UNSURE	HS PROG	FRIEND	CONTROL	FINANCIAL PROB.	ECONOMIC AREA	ENROLL RATE	MODEL	SEX	RURAL	FATHER EDUCATION
ENROLLMENT																			
ASPIRATIONS	.58											--							
GOOD JOB	.49	.36																	
UTILITY	.41	.46	.65																
VALUES	.29	.33	.48	.60															
OCC GOAL	.34	.27	.35	.22	.09														
HIGH OCC	.28	.23	.21	.19	.14	.36													
HIGH SUCC	.28	.28	.22	.22	.22	.33	.62												
OCC UNSURE	.02	.08	.06	.08	.11	.08	.01	.00											
HS PROG	.52	.40	.45	.33	.16	.36	.36	.34	.07										
FRIENDS ENROLL	.32	.31	.23	.19	.12	.19	.25	.18	.02										
CONTROL	+.14	+.06	+.13	+.08	+.10	+.12	+.12	+.06	+.24	+.12									
FINANCIAL PROB.	.09	.02	.02	.07	.03	-.01	-.03	-.06	.03	+.00	.02								
ECONOMIC AREA	.00	.05	-.04	-.04	-.10	.03	.01	.08	.01	.01	-.01	.03'							
ENROLL RATE	.13	.13	.03	.10	.07	.06	-.06	+.11	.06	+.09	.09	-.05	-.03						
MODEL	.20	.17	.11	.08	.12	.23	.34	.30	-.08	.29	.34	-.03	-.03	.01					
FAMILY	.05	.02	-.02	.02	.01	-.02	.01	.00	.10	-.07	-.07	-.09	.09	.02	.07				
SEX	.09	.03	-.11	-.07	-.05	-.18	-.06	.02	-.04	.09	.11	-.12	.05	-.04	.07	.17			
RURAL	.14	.10	.09	.15	.09	.11	.11	.10	-.01	.13	.02	.00	.06	.13	-.19	-.01	+.08		
FATHER ED.	.35	.25	.18	.21	.06	.18	.15	.21	-.01	.34	.24	-.06	-.20	.09	.19	.27	+.07	.17	
FATHER OCCUP.	.28	.25	.20	.18	.02	.28	.18	.17	-.03	.32	.18	-.10	-.09	.11	.13	.19	.03	.28	.48

Chart S

Path Coefficients for the Expanded Model

	INDEPENDENT VARIABLES	DEPENDENT VARIABLES ENROLL	ASP.	GOOD JOB	UTILITY	VALUES	OCCGOALS	HIOCC	HISUCC	HSPROG.
	ENROLLMENT									
	ASPIRATION	.34								
Values for post-secondary education	GOOD JOB	.08	.40							
	UTILITY	—	.12	—						
	VALUE	.07	—	—	—					
	OCCUPATIONAL GOAL	.09	—	.22	—	—				
	HIGH OCC	—	—	—	—	—	—			
	HIGH SUCC	—	.12	—	.11	.22	.23	.53		
	OCC UNSURE	—	.05	.07	.09	.16	-.13	—		
	HIGH SCHOOL PROGRAM	.23	—	.38	.25	—	.25	.14	—	
	FRIENDS ENROLLED	—	.16	—	—	.08	—	—	—	—
	SCHOOL IS A WASTE	—	—	+.10	+.15	+.20	—	—	—	+.07
	CONTROL	+.05	—	—	—	—	—	—	—	+.08
	FINANCIAL PROBLEMS	.11	—	—	—	—	—	—	—	—
	ECONOMIC REGION	—	—	—	—	.14	—	—	—	—
	SCHOOL CONSTRUCTION RATE	—	.06	—	—	—	—	—	—	—
	MODEL	—	—	—	—	—	—	.14	.39	.20
	ACADEMIC PROBLEMS	—	—	—	—	—	+.12	—	—	.12
	SEX	—	.10	—	—	—	.18	—	—	—
	RESIDENCE	—	—	—	.11	.11	—	—	—	—
	FATHERS EDUCATION	.17	—	—	.09	—	—	—	.13	.18
	FATHER'S OCCUPATION	—	.10	—	—	—	.15	—	—	.18
	r^2 (% of variance in dependent variable explained)	.49	.41	.26	.16	.13	.25	.43	.11	.21

NOTES ON RELATED LITERATURE

This study draws upon and contributes to several lines of social research. First, substantial research has been conducted relating to the conditions which lead students in high school to aspire to college attendance, and then to subsequently enroll. Campbell and Alexander (1965), for example, show that student aspirations were higher among students whose parents have higher social status, among students who have higher levels of ability and motivation, among males more than females, and among students whose aspirations are supported by their peers. Similar findings were reported by Sewell and Shah (1967) who extended the analysis to actual enrollment in college. Other works of signfficance are Astin's Who Goes Where to College which looks at the actual college attender and Medsker's Beyond High School which looks at the high school student's perspective. The Vermont study is unique in that it is concerned with all forms of postsecondary education rather than just college. Also: Willingham, Warren, Free Access Higher Education (N.Y. College Entrance Examination Board); John C. Flanagan, Project Talent.

A second line of research involves the extended study of stratification in the society. The baseline study in this area is Blau and Duncan's American Occupational Structure which documents the strong impact of education in the process of status transmission from one generation to the next. Fathers who are advantaged share their advantages with their sons primarily by helping them get extended educations;

furthermore, mobility by sons from a disadvantaged background is largely due to educational achievement obtained in spite of their background. Of particular importance is the assessment of the impact of education for stratification in rural areas where it has been shown that educational achievement and aspirations are lower than in urban areas (Sewell, 1964; Featherman, 1971). The place of education in promoting equality in the society has been explored by Coleman in Equality of Educational Opportunity and Jencks in Inequality. Other research has shown the importance of education for other aspects of a person's life than simply occupational success--it is of great significance for shaping political attitudes, life styles, and psychological orientations.

Related to the above two concerns is a body of research on the reasons that students choose to attend college. The major division in reasons seem to fall along two lines--the students who aspire for college in order to be involved in learning for its own sake with a concentration on the liberal arts, and the students who aspire for education primarily in order to get a good job. (Clark and Trow, 1966; Coleman, 1961; P. Cross, Beyond the Open Door, 1971).

A final body of research concerns the study of the way students develop aspirations for particular occupations. The Vermont study will make a contribution to this analysis in terms of suggesting that the student's confidence and the availability of role models contribute to the occupational choice process. Other work has considered the interests and values of the student (Rosenberg, 1957; Davis, 1965). Of particular note should be the research on the consequences of education for the labor market and for job satisfaction.

If educated people are not working in jobs which require their training, they can be dissatisfied (Berg, 1971).